

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (Cancelled)

2. (Currently amended) A method for determining a scent or taste profile of a user comprising:

storing in a computerized system for each of a set of products chosen among products for which a database includes smell or taste prints constituted by a set of measurements given by smell or taste electronic sensors, a satisfaction note rating (SN) given by the user; and

automatically calculating by the computer weighting coefficients constituting said profile and respectively affected to said sensors measurements, by successive approximation of sets of weighting coefficients leading to minimizing the sum of the quadratic errors over the set of satisfaction notes;

~~The method of claim 1, in which wherein~~ the weighting coefficients of the user's profile are determined by minimizing the result of the following formula by successive approximation of sets of weighting coefficients  $\alpha_j$ ,

$$\sum_{h=1}^q \left( SN_h - \sum_{j=1}^n (\alpha_j \cdot MV_{j,h}) \right)^2,$$

where  $SN_h$  designates the rating given by the user for the product of rank  $h$  of said set of  $q$  products, where  $\alpha_j$  designates the weighting coefficient of rank  $j$

affected to the product of rank j of the smell or taste prints, and  
where  $MV_{j,h}$  designates the scores of rank j of the smell print of product of rank h.

3. (Currently amended) The method of claim 4 2, wherein each satisfaction note rating, is a value from 1 to 5.

4. (Currently amended) The method of claim 4 2, further comprising receiving from the user an additional rating for an additional product selected, on the basis of the already given ratings, as being the product for which the notation of the user will be the most relevant for the user profile.

5. (Currently amended) A method for selecting a product adapted to a user on the basis of its smell or taste comprising:

storing in a computerized system for each of a set of products chosen among products for which a database includes smell or taste prints constituted by a set of measurements given by smell or taste electronic sensors, a satisfaction note rating (SN) given by the user;

automatically calculating by the computer weighting coefficients constituting a user profile and respectively affected to said sensors measurements, by successive approximation of sets of weighting coefficients leading to minimizing the sum of the quadratic errors over the set of satisfaction notes;

receiving from the user an additional rating for an additional product selected, on the basis of the already given ratings, as being the product for which the notation of the user will be the most relevant for the user profile;

The method of claim 4, wherein the selection of the additional product is made by maximizing the following formula over all the products:

$$\sum_{j=1}^m \left( \sum_{L=1}^{NL} \frac{f(L) \cdot |\alpha_{j,s} - \alpha_{j,s^*,L}|}{\alpha_{j,s}} \right),$$

where NL is the total number of values for the ratings L of the user;  $\alpha_{j,s}$  is the set of coefficients  $\alpha_j$  already calculated on the basis of the q products already noted by the user;  $\alpha_{j,s^*,L}$  is the set of coefficients  $\alpha_j$ , calculated for the set of q+1 products under

the hypothesis of a note L for the product of rank q+1; and f(L) is an optional function of weighting of the different coefficients  $\alpha_j$ .

6. (Currently amended) A method for selecting a product adapted to a user on the basis of its smell or taste, using a user profile determined according to any one of claims 1, 2 or 4, the method comprising:

estimating a rating for products for which the database includes the smell or taste prints, by applying the weighting coefficients to the smell or taste prints; and  
selecting among the products, a subset on the basis of the estimated rating.

7. (Currently amended) A method for selecting a product adapted to a user on the basis of its smell or taste comprising:

storing in a computerized system for each of a set of products chosen among products for which a database includes smell or taste prints constituted by a set of measurements given by smell or taste electronic sensors, a satisfaction note rating (SN) given by the user;

automatically calculating by the computer weighting coefficients constituting a user profile and respectively affected to said sensors measurements, by successive approximation of sets of weighting coefficients leading to minimizing the sum of the quadratic errors over the set of satisfaction notes;

estimating a rating for products for which the database includes the smell or taste prints, by applying the weighting coefficients to the smell or taste prints; and  
selecting among the products, a subset on the basis of the estimated rating.

The method of claim 6, in which wherein the estimated rating for each product is obtained by applying the following formula:

$$IP_i = \sum_{j=1}^n \alpha_j \cdot MV_{i,j},$$

where IP<sub>i</sub> designates the note estimated for the product P<sub>i</sub> of the database, where  $\alpha_j$  designates the weighting coefficient of rank j affected to the product of rank j of the smell or taste print according to the user's profile, and where  $MV_{i,j}$  designates the measurement of rank j of the smell or taste print of product of rank i.

8. (Previously Presented) The method of claim 6, in which the product of said subset is selected for having an estimated rating close to the highest or lowest rating within a predetermined margin.

9. (Original) The method of claim 6, in which a predetermined number of products having the highest or lowest estimated rating constitutes said subset.

10. (Previously Presented) The method of claim 6, applied to perfumes selection.

11. (Previously Presented) The method of claim 6, applied to wines selection.

12. (Currently amended) A system for determining a scent or taste profile of a user comprising:

a database containing smell or taste prints of products constituted by a set of measurements given by smell or taste electronic sensors;

a memory element for storing a user rating of each of a set of products chosen among the products contained in said database; and

a calculator for determining weighting coefficients constituting said profile and respectively affected to said sensors, by successive approximation of sets of weighting coefficients leading to minimizing the sum of the quadratic errors over the set of ratings;

wherein the weighting coefficients of the profile are further determined by the calculator by minimizing the result of the following formula by successive approximation of sets of weighting coefficients  $\alpha_j$ ,

$$\sum_{h=1}^q \left( SN_h - \sum_{j=1}^n (\alpha_j \cdot MV_{j,h}) \right)^2,$$

where  $SN_h$  designates the rating given by the user for the product of rank  $h$  of said set of  $q$  products, where  $\alpha_j$  designates the weighting coefficient of rank  $j$  affected to

the product of rank j of the smell or taste prints, and where  $MV_{j,h}$  designates the scores of rank j of the smell print of product of rank h.

13. (Previously Presented) The system of claim 12, further comprising:  
an estimator to determine estimated ratings for products that have their smell or taste print in the database, by applying the weighting coefficients to the smell or taste prints; and

a selector for selecting among the products, a subset on the basis of the estimated ratings.

14. (Previously Presented) The system of claim 13, wherein said products are perfumes or wines.

15. (Previously Presented) The system of claim 13, wherein said selector is configured to select a subset of products having estimated ratings within a predetermined margin of the highest or lowest estimated rating.

16. (Previously Presented) The system of claim 12, further comprising a smell or taste electronic sensor.

17. (Previously Presented) The method of claim 1, wherein said satisfaction note rating is a value from 1 to 3.

18. (Canceled)

19. (Canceled)

20. (Currently amended) A system for selecting a product adapted to a user on the basis of its smell or taste, using a user profile, comprising:  
a database containing smell or taste prints of products constituted by  
a set of measurements given by smell or taste electronic sensors;

a memory element for storing a user rating of each of a set of products chosen among the products contained in said database; and  
a calculator for determining weighting coefficients constituting said profile and respectively affected to said sensors, by successive approximation of sets of weighting coefficients leading to minimizing the sum of the quadratic errors over the set of ratings; for estimating a rating for products for which the database includes the smell or taste prints, by applying the weighting coefficients to the smell or taste prints; and for selecting among the products, a subset of the products on the basis of the estimated rating.

~~The system of claim 19,~~ wherein the estimated rating for each product is obtained by the calculator by applying the following formula:

$$IP_i = \sum_{j=1}^n \alpha_j \cdot MV_{i,j},$$

where  $IP_i$  designates the note estimated for the product  $P_i$  of the database, where  $\alpha_j$  designates the weighting coefficient of rank  $j$  affected to the product of rank  $j$  of the smell or taste print according to the user's profile, and where  $MV_{i,j}$  designates the measurement of rank  $j$  of the smell or taste print of product of rank  $i$ .